



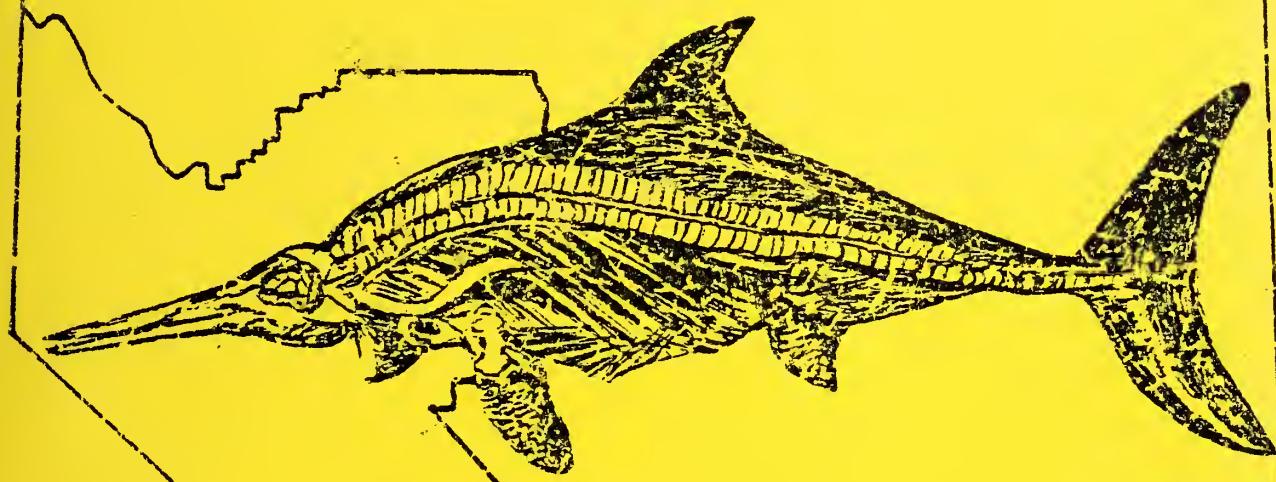
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PALEONTOLOGICAL INVENTORY
OF THE CARSON CITY
BUREAU OF LAND MANAGEMENT DISTRICT

AND

PALEONTOLOGICAL BIBLIOGRAPHY OF NEVADA

BLM CONTRACT TA 512-CT9-262



JAMES R. FIRBY Ph.D.

PRINCIPAL INVESTIGATOR

HOWARD E. SCHORN

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ASSOCIATE INVESTIGATORS

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Volume I

PALEONTOLOGICAL INVENTORY OF THE CARSON CITY
BUREAU OF LAND MANAGEMENT DISTRICT

and

Paleontological Bibliography of Nevada
BLM Contract YA 512-CT9-262

by James R. Firby, Ph.D.
Howard E. Schorn, C.P.h.
Thomas P. Lugaski, Ph.D.

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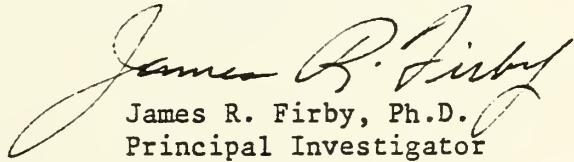
Norman Melvin, COAR
Bureau of Land Management
Reno State Office
Division of Resources
300 Booth Street
Reno, Nevada 89509

Dear Sir:

Herein is submitted the report entitled "Paleontological Inventory of the Carson City Bureau of Land Management District and Paleontological Bibliography of Nevada", completed under contract number YA512-CT9-262, as amended. It is attested that the terms of this contract, as mutually agreed upon, are satisfied herewith.

The report consists of three major parts. Volume 1 contains the introduction, formation index, explanatory text, state-wide and Carson City Bureau of Land Management District bibliographies. Volume 2 contains the Paleontological Resources Inventory Data Register sheets, arranged in order of plant, invertebrate, and vertebrate fossil localities within the Carson City Bureau of Land Management District. Part 3 consists of the map overlays.

Respectively submitted,



James R. Firby
James R. Firby, Ph.D.
Principal Investigator

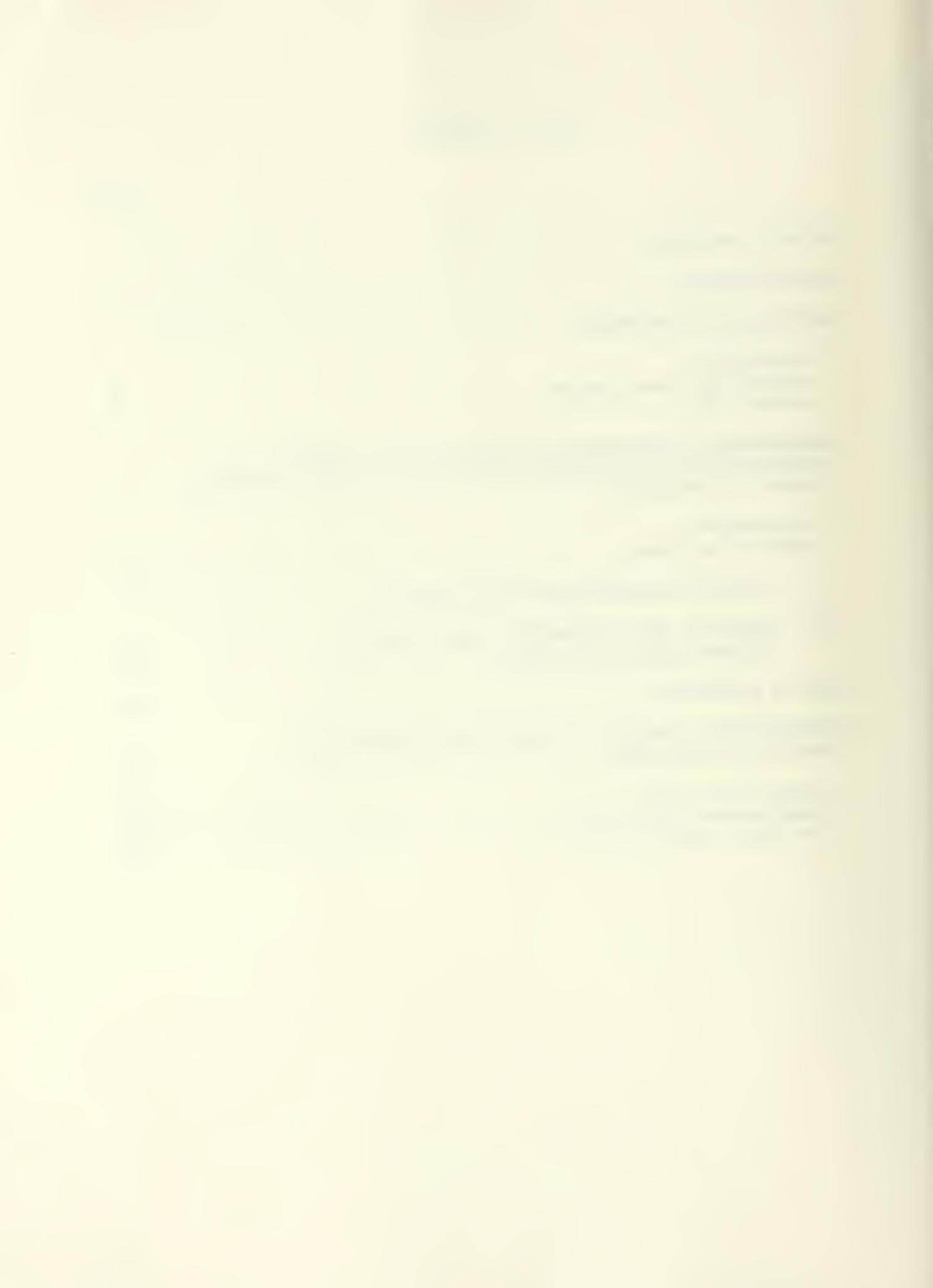
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PALEONTOLOGICAL INVENTORY OF THE CARSON CITY BUREAU OF LAND
MANAGEMENT DISTRICT AND PALEONTOLOGICAL BIBLIOGRAPHY OF NEVADA

BLM CONTRACT YA512-CT9-262

Introduction

Within the Carson City Bureau of Land Management District there are abundant fossil localities of both marine and non-marine origin. The objectives of this report are to inventory and evaluate all such localities within the district, locate them, and evaluate their sensitivity. Insofar as possible, these objectives have been accomplished and the results presented herein. Additionally, a comprehensive bibliography of all literature relating to the vertebrate, invertebrate, paleobotanical, and stratigraphic aspects within the Carson City District was compiled. By amendment to this contract, at the request of the Bureau of Land Management of the United States Department of the Interior, the bibliographical section was increased to become a state-wide reference.

In addition to the locality data, references, and sensitivity classifications, map overlays on the scale of 1:100,000 were prepared which show the location of vertebrate, invertebrate, and paleobotanical sites within the Carson City Bureau of Land Management District. Map overlays in the scale of the Army Map Service (AMS) were additionally prepared which show those areas of the entire state which may be considered to be potentially fossiliferous, based on geologic data presented in current literature. No specific localities are shown on overlays at the AMS scale, these data being presented only to indicate, in a general way, the areas of potential paleontological resources.

Treatment of the criteria for sensitivity, explanation of terms used to indicate geologic age, type of paleontologic resource and its preservation, are given in succeeding sections of this report.

Sensitivity Classification

All localities presented in this report, insofar as possible, have been assigned a sensitivity rating of S-1, S-2, or S-3. A rating of S-1 indicates a high sensitivity; S-3 indicates a low degree of sensitivity. Assignment to one of these categories is controlled by evaluating five major factors: 1) Proximity of fossil site to man made features, 2) relative abundance of the fossils at the locality and elsewhere, 3) type of preservation of fossils (an indication of resistance to destruction by natural forces, an example - erosion),

4) the type of fossils (plant, vertebrate, invertebrate) at the locality and, 5) whether or not significant collections have been made from the locality or, in some cases, if all or nearly all the material has been removed. In this latter case, for example, if a specimen of a vertebrate animal like Tomarctus, a Miocene carnivore, had been removed from a cataloged locality, then that locality would have an obviously lower sensitivity. It is, therefore, a subjective determination made by the principal and associate investigators; a judgment call based on our collective experience and what we knew about or could determine from each locality.

In the various localities within the Carson City District the following broad categories were considered:

1) Invertebrate - Marine: Usually in well indurated limestones and shales resistant to rapid erosion in this climate. By the nature of their deposition, these are generally widespread localities and usually have a low sensitivity.

2) Invertebrate - Non-marine: Generally less extensive in original deposition than marine, and because of usually lower degree of induration, less resistant to natural destructive weathering processes. Usually extensive enough and well enough collected to rate a low sensitivity. It is important to note an exception to this, however, and that is in the case of fossil insects, known from several localities in the paper shale units of the Esmeralda formation. Since insects in general lack readily preservable hard parts (for example, a shell such as some mollusks have) the fact that they are preserved at all is highly unusual. Additionally, the excellent quality of preservation of the present specimens makes these few localities of world-wide importance to the scientific community, automatically requiring the highest sensitivity rating of S-1. Other non-marine invertebrates, primarily mollusks, also may present a situation of such exquisite preservation and limited size of outcrop that they rate a moderate (S-2) or even higher (S-1) designation.

3) Vertebrate - Marine: Usually associated with invertebrate marine of Triassic age, and invariably of only one type of organism - the parapsid reptiles known as Ichthyosaurs. These large (up to 60 foot long) marine reptiles are the State Fossil of Nevada, and although locally abundant near the border of the Carson City District, are of a species that is recognized nowhere else in the world.

4) Vertebrate - Non-marine: Generally found as discrete skeletal elements in weakly indurated rocks or compacted non-cemented sediments. A wide range of species occur within the Tertiary sediments of the district, and are usually represented by only scattered, often water-worn fragments. This does not reduce their importance however, as they are the premier indicators of age and paleobiological correlation. On rare occasions, an entire or nearly entire skeleton has been found. Almost always a mammalian vertebrate locality rates at least an S-2 designation,

sometimes S-1, and rarely an S-3 unless the site has been completely mitigated.

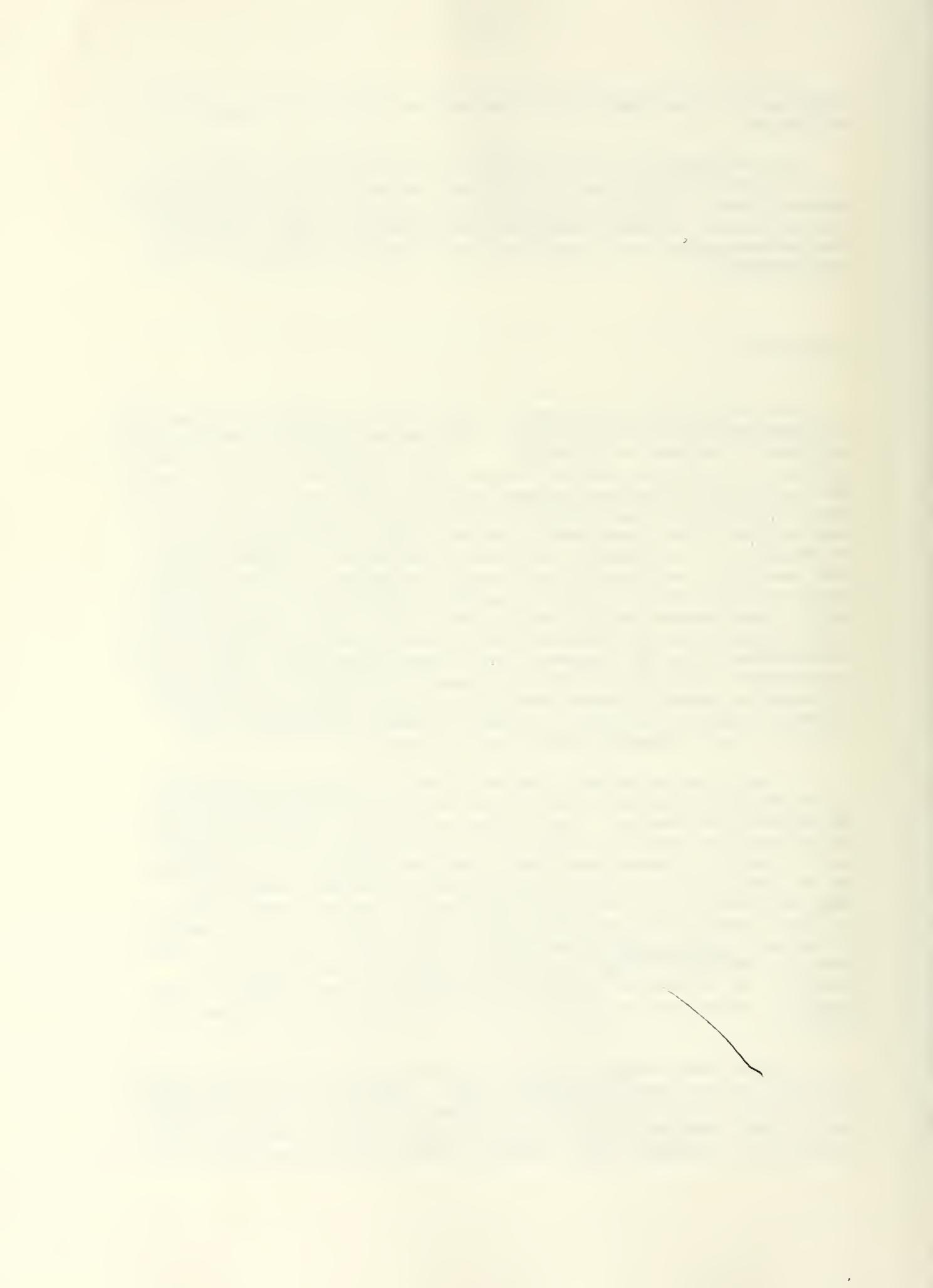
The assignment of all localities in this report to either S-1, S-2, or S-3 is intended as a subjective evaluation of the professional paleontologist to aid the personnel of the Bureau of Land Management and the public to better understand and appreciate their occurrence. Such understanding can be used to better evaluate proposals of land use management.

Geologic Age

The geologic age terms used in this report are standard terms used by North American paleontologists. They are of different magnitudes and utilized to indicate relative age. In the literature there are many references to particular epochs or ages which, while valid at the time of publication have subsequently been changed, either by more recent evidence indicating an imprecision in the original determination or by a redefinition of the particular relative concept which changes that determination. For example, the term Clarendonian, a North American land mammal age based on a fossil mammal assemblage from the Clarendon Ranch in Texas, is referred to in earlier literature (pre - 1964) as being an age concept within the Pliocene epoch of the Tertiary period of the Cenozoic era in North America. A more modern interpretation of Clarendonian is as the uppermost age of the Miocene epoch, thus essentially redefining the concepts of Miocene and Pliocene as recognized by mammalian faunas in North America. In this report, every attempt is made to insure that usage of time and time-stratigraphic terms follows current accepted paleontologic practice.

It should be noted that time and time-stratigraphic terminology is not applied uniformly throughout the world, or for that matter, throughout North America. The various philosophies behind the growth of the relative geologic time scale are too complex to be discussed in this report. Indeed, many books have been written on the subject, and no doubt many more will be written in the future, because the temporal concepts and definitions and their attendant terminologies are not a static thing devised by some elite group of earth scientists acting as a corpus academe, but rather have evolved owing to the emergence of new data through the last two hundred years of geologic thought. It is not the intent of the author nor the purpose of this report to add to that discussion, but only to explain the terms used herein.

A common misconception exists as to the relationship of relative geologic time and absolute geologic time. Basically, relative geologic time is only sequential, that is one event, or thing (such as a particular fauna) occurred before or after another event or thing without implication of elapsed time. Absolute time determination states that



a particular event or thing occurred a certain number of years before present. In practice, that means that a boundary between two relative time or time-stratigraphic units may actually vary in terms of absolute time depending on where the units are and on what they are based. The absolute time comparisons used in this report are, therefore, to be regarded as an indication of approximate time expressed as the number of 'years before present' for the boundaries in western North America based on mammalian chronologies in the Cenozoic and marine invertebrate chronologies in Mesozoic and earlier strata. These are presented below in the form of a chart. The magnitude of the time units is, in order from most to least inclusive, Era, Period, Epoch, Age. Time units are extrapolated from actual strata or (in eras) the total paleobiological aspect. In the case of periods, epochs, and ages, these actual strata are the time-stratigraphic unit systems, series, and stages, respectively. There is no time-stratigraphic unit comparable to eras. It should also be noted that in the older (Mesozoic and Paleozoic) eras of the Phanerozoic there are no epochs, as the criteria for epochs does not exist below the lower boundary of the Cenozoic era. The term Phanerozoic is used to indicate that part of relative geologic time when abundant life forms were preserved as fossils, generally this excludes rocks older than Cambrian. No reference of stages is included for the Mesozoic and Paleozoic eras for several reasons, the most compelling one being that only two late Triassic ages are noted definitely within the district, there are the Karnian and immediately overlying Norian stages. The other reason is that there are over fifty stages which have no relation to the present district, and their enumeration would add nothing to the understanding of geologic time as used in this report.

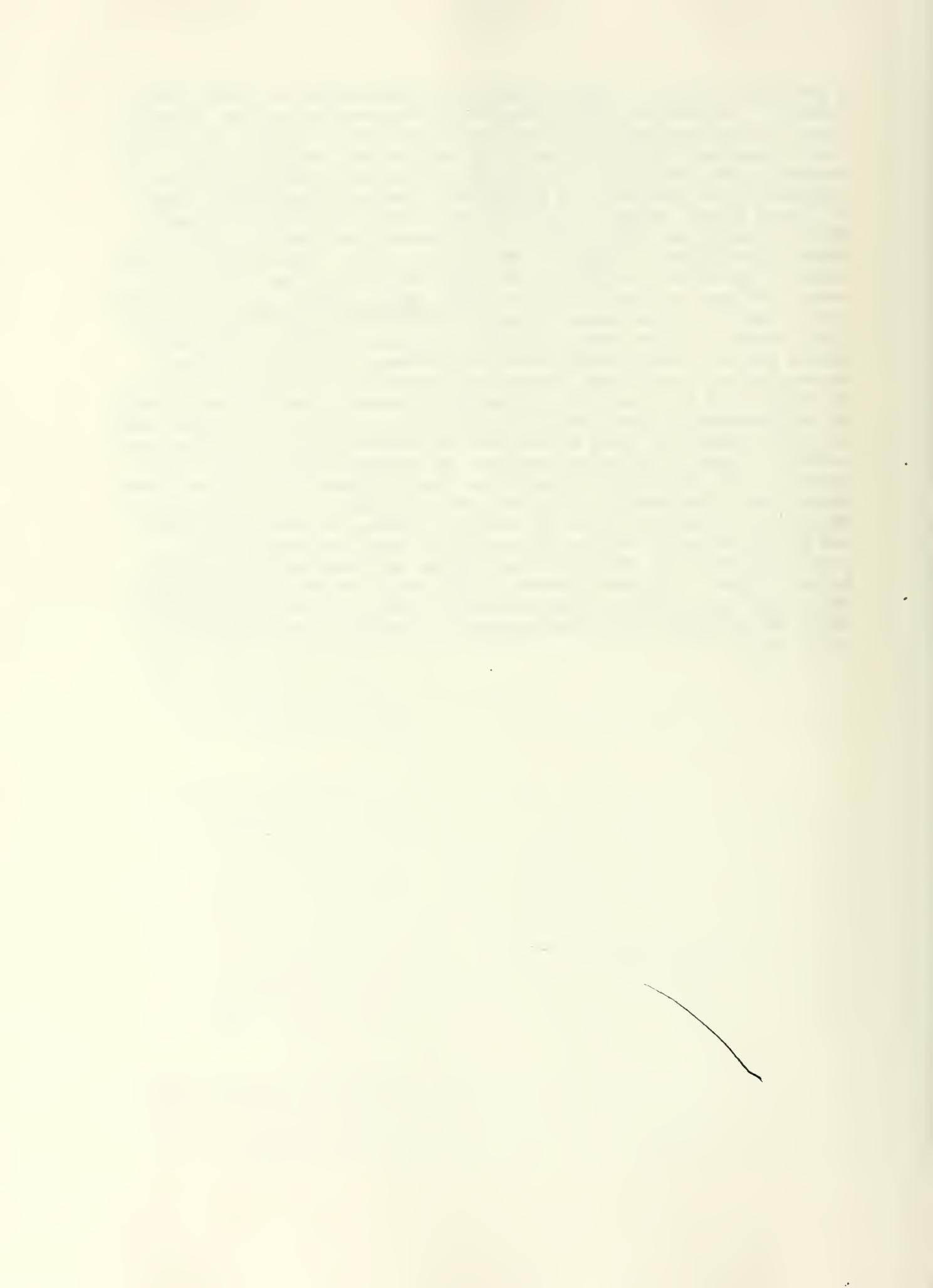


Table 1.

THE GEOLOGIC TIME SCALE - MOST RECENT UNITS

ERA	PERIOD	EPOCH	(North American)	Approximate Absolute TIME
Quaternary	Holocene	-	Rancho LaBorean	- <u>+1.5</u> mybp
			Irvingtonian	
	Pleistocene	Montodiablian		
			Late Blancan	- <u>+2.4</u> mybp
	Pliocene	-	Early Blancan	
			Hemphillian	- <u>+8.1</u> mybp
	Miocene	-	Clarendonian	- <u>+13.0</u> mybp
			Barstovian	- <u>+16.7</u> mybp
	Oligocene	-	Hemingfordian	- <u>+19.8</u> mybp
			Arikareean	- <u>+30.0</u> mybp
Cenozoic	Tertiary	-	Orellan	
			Chadronian	- <u>+34.0</u> mybp
			Duchesnean	
			Uintan	- <u>+37.0</u> mybp
			Bridgerian	
			Wasatchian	
			Clarkforkian	
			Tiffanian	
			Torrejonian	- <u>+58.0</u> mybp
			Puercan/ Dragonian	- <u>+64.8</u> mybp
Mesozoic	Cretaceous			- <u>+135</u> mybp
	Jurassic			- <u>+180</u> mybp
	Triassic			- <u>+230</u> mybp
Paleozoic	Permian			- <u>+280</u> mybp
	Late Carboniferous (Pennsylvanian)			+310 mybp
	Early Carboniferous (Mississippian)			+345 mybp
	Devonian			+400 mybp
	Silurian			+425 mybp
	Ordovician			+450 mybp
	Cambrian			+550 mybp

PALEONTOLOGICAL BIBLIOGRAPHY OF NEVADA, WITH A SEPARATE
PALEONTOLOGICAL BIBLIOGRAPHY OF THE BUREAU OF LAND MANAGEMENT,
CARSON CITY DISTRICT

Introduction

Included in this bibliography are 1445 entries listed alphabetically by author. Part I of the listing is statewide, inclusive of the Bureau of Land Management, Carson City District. Part II is a reiteration for the Carson City District only. Not all entries are directly referable to fossil localities, as many of the topics discussed by some authors are more generalized in their treatment and may refer to major groups, or temporal, or stratigraphic divisions which are not as geographically restricted as a particular locality. This bibliography has been updated through December of 1980.

Sources for references are twofold: First, literature searches using ten (10) different computer data bases; second, intensive search of literature either too old or too recent to be included in computer data bases. The latter effort was completed by the principal and associate investigator in the time honored tradition of physically searching conceivable sources for pertinent literature. A list of the ten computer data bases, with a brief description, is presented below. These were accessed through the University of Nevada CARS (Computer Assisted Reference Service) program.

Computer Data Bases

1. GeoRef - Geological Reference file, prepared by the American Geological Institute. Based on citations from Bibliography and Index of Geology, plus conferences, major symposia and monographs.
2. Geoarchive - The most comprehensive and best indexed geoscience data base. There is no printed equivalent.
3. Scisearch - A multidisciplinary index to the literature of science and technology, it corresponds to the printed Science Citation Index estimated to include 90% of the worlds significant scientific and technical literature.
4. SSIE Current Research - Smithsonian Science Information Exchange Current Research is a data base containing reports of both government and privately funded scientific research projects, either currently in progress or initiated and completed during the most recent two years.
5. NTIS - The National Technical Information Service data base consists of government sponsored research, development and engineering, plus analyses prepared by federal agencies, their contractors and grantees.
6. Biosis Previews - This data base, which contains citations from Biological Abstracts and Bioresource Index, provides world wide coverage of research in the life sciences, and includes titles in paleontology.

7. Comprehensive Dissertations Abstracts - This index is a definitive subject, title and author guide to virtually every American dissertation accepted at an accredited institution since 1861. The printed indexes included in this data base are: Dissertation Abstracts International, American Doctoral Dissertations, and Comprehensive Dissertation Index.
8. Conference Papers Index - This data base provides access to records of more than 100,000 scientific and technical papers presented at over 1,000 major regional, national and international meetings each year. Primary subject areas include the life sciences, chemistry, physical sciences, geosciences and engineering.
9. Compendex - Compendex is the machine readable version of Engineering Index. It includes worldwide coverage of 3,500 journals, societal publications, papers, proceedings, etc.
10. GPO Monthly Catalog - On-line, this is the machine readable equivalent of the printed Monthly Catalog of United States Publications.

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Spiriferina ? sp.

Daonella Mousson. Merian

Nucula sp.

Ceratites (Bymnnotoceras) Becker. Smith?

Ceratites (Gymnotoceras) Russell. Smith?

Assigns age of "...without question to the Middle Triassic"
"Lot 2. 100 feet in footwall of Simon Lode, near the
Mammoth fault.

Spiriferina ? sp. Fragment

States that "This specimen not sufficient for determining
whether ... Triassic..."

"Lot 3. Footwall of Simon Lode". Non diagnostic, fragments
of pelecypods and brachiopods. Also refers to the "Lake beds
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Notes: Localities: CIT Loc. 173, 174, 175, 176, 177.

V4713, 4714, 4715, 4839, 4840, 4841, 4842, 4843, 4853.

Localities bordering Nev. State Highway 3 between Wilson and Central, S.W. of Yerington on either side of Wilson Canyon, along the trace of Petrified Tree Canyon, N. slope of Pine Grove Hills.

Macdonald, J.R., 1959 (Cont.)

Notes:

Lagomorpha	Felidae gen. indit.
Leporidae, gen. indit.	
Rodentia	Proboscidae
Aplodontidae, gen. indit.	Mammutidae
Sciuridae	mammut (Pleiomastondon)
? <u>Citellus</u> sp.	nevadenus
Geomysidae	Gomphotheriidae gen. indit.
<u>Pliosaccommys</u> <u>dubius</u>	
Castoridae	Perissodactyla
<u>Dipoides</u> sp.	Equidae
Cricetidae	<u>Pliohippus</u> c.f. <u>spectans</u>
<u>Peromyscus</u> near <u>antituus</u>	
Zapodidae	Rhinocerotidae
<u>Plio zapus</u> <u>solus</u>	Aphelops sp.
Carnivora	Rhinocerotidae gen. indit.
Canidae	Artiodactyla
Canidae, gen. indit.	Tayassnidae
<u>Osteoborus</u> sp.	<u>Prosthennops</u> sp.
Ursidae	Camelidae
<u>Indarctos</u> <u>nevadensis</u> (n. sp.)	? <u>Pliauchenia</u> sp.
? <u>Indarctos</u> sp.	<u>Paracamelus</u> sp.
	Camelidae, gen. indit.
	Antilocapridae gen. indit.

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INDEX OF LOCALITIES

The following list of localities is alphabetical by geologic formation. In addition, reading across for each entry will give the plot in which the locality can be found, the planning unit, (where applicable) and the geologic age. Thus, depending on which data you select the index may be used in any of these ways, however, only the formations are systematic by alphabet. Since most formations are restricted to only one geologic period or epoch (sometimes however, to two stages or ages), the age register may be used as an almost parallel index by reading from right to left.

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"	205	15	"	"	Triassic
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"	209	17	"	"	Triassic (Karnian)
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"	213	19	"	"	" "
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"	217	111	"	"	" "
"	219	112	"	"	" "
"	221	113	"	"	Triassic
"	223	114	"	"	Triassic (Karnian)
"	225	115	"	"	" "
"	227	116	"	"	Triassic

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Luning	229	I17	Tonopah	Mina	Triassic
"	231	I18	"	"	"
"	233	I19	"	"	"
"	235	I20	"	"	"
"	237	I21	"	"	"
"	239	I22	"	"	"
"	494	V78	"	"	Triassic (Karnian)
"	498	V80	"	"	"
"	526	V94	"	"	"
"	528	V95	"	"	"
"	564	V113	Ione Valley	Adjacent to Carson City	"
"	566	V114	"	"	"
"	568	V115	"	"	"
"	672	V167	"	Mina	"
"	710	V186	Tonopah	"	"
"	744	V204	Ione Valley	Adjacent to Carson City	Triassic (Norian/ Karnian)
Middlegate	148	P9	Smith Creek Valley	Clan Alpine	Miocene (Hemingfordian)
"	150	P10	"	"	"
"	450	V56	"	Fort Churchill	Miocene (Barstovian)
"	452	V57	"	"	"
"	454	V58	"	"	"

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Middlelegate	456	V59	Smith Creek Valley	Fort Churchill	Miocene (Barstovian)
"	462	V62	" " "	" "	" "
"	466	V64	" " "	" "	" "
"	468	V65	" " "	" "	" "
"	598	V130	" " "	" "	" "
"	602	V132	" " "	" "	" "
"	604	V133	" " "	" "	" "
"	606	V134	" " "	" "	" "
"	608	V135	" " "	" "	" "
"	610	V136	" " "	" "	" "
"	612	V137	" " "	" "	" "
Monarch Mill	464	V63	" " "	" "	Pliocene (Hemphillian)
" "	586	V124	" " "	" "	" "
Morgan Ranch	134	P2	Smith Valley	Walker	" "
" "	374	V18	" "	"	Miocene(Clarendonian)
Prida	424	V43	Edwards Creek Valley	Fort Churchill	Triassic
Sunrise	325	I67	Excelsior Mt.	Mina	"
Truckee	146	P8	Reno	Pyramid	Miocene (Barstovian)
"	176	P23	"	Clan Alpine	Pliocene (Hemphillian)
"	422	V42	"	Fort Churchill	Miocene (Clarendonian)
"	426	V44	"	Adjacent to Carson City	"
"		V45	"	" "	" "

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Truckee	430	V46	Reno	Adjacent to Carson City	Miocene (Clarendonian)
"	432	V47	"	Fort Churchill	"
"	434	V48	"	" "	"
"	436	V49	"	Adjacent to Carson City	"
"	438	V50	"	Fort Churchill	"
"	440	V51	"	Adjacent to Carson City	"
"	442	V52	"	" "	"
"	444	V53	"	" "	"
"	446	V54	"	" "	"
"	448	V55	"	" "	"
"	458	V60	"	Fort Churchill	"
"	460	V61	"	" "	"
"	584	V123	"	Adjacent to Carson City	"
"	588	V125	"	" "	"
"	590	V126	Carson City	Fort Churchill	"
"	594	V128	Reno	" "	"
"	596	V129	"	" "	"
"	600	V131	"	Adjacent to Carson City	"

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Unnamed Miocene	132	P1	Walker Lake	Mina	Miocene (Hemingfordian)
" "	136	P3	Smith Valley	Walker	Miocene (Barstovian?)
" "	174	P22	Reno	Pyramid	Miocene (Clarendonian)
" "	178	P24	In Calif. West of Reno Sheet	Long Valley	" "
" "	180	P25	Smith Creek Valley	Clan Alpine	Miocene (Hemingfordian)
" "	182	P27	Carson City	Pine Nut	Miocene (?)
" "	190	P31	Smith Valley	Pine Nut	Miocene (?)
" "	640	V151	Excellsior Mt.	Mina	Miocene (Clarendonian)
" "	686	V174	Tonopah	Mina	Miocene (Barstovian?)
Unnamed Pliocene	337	174		Mina	Pliocene (Blancan)
Unnamed Quaternary	530	V96	Walker Lake	Mina	Quaternary (Rancholabrean)
" "	562	V112	Ione Valley	Adjacent to Carson City	" "
" "	578	V120	Reno	Pine Nut	" "
" "	592	V127	Fallon	Fort Churchill	" "
" "	628	V145	Smith Valley	Walker	" "
" "	6302	V147	" "	"	" "
" "	690	V176	Walker Lake	Mina	" "
" "	692	V177	Smith Valley	Mina	" "
" "	748	V206	Reno	Indian Lands	" "

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Unnamed Quaternary	750	V209	Kumiva Peak	Pyramid	Quaternary (Blancan)
"	"	V210	" "	"	Quaternary (Rancholabrean)
"	"	V212	Reno	Pine Nut	" "
Wichman	638	V150	Smith Valley	Walker	Pliocene (Blancan)

Addendum

FORMATION	DATA PAGE	PLOT #	BLM MAP AND OVERLAY SHEET	PLANNING UNIT	AGE
Coal Valley	784	V226	Smith Valley	Walker	Pliocene (Hemphillian)
" "	786	V227	" "	"	" "

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER AND SENSITIVITY EVALUATION

Plant Fossil Sites

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-1 (2) B.L.M. Map and Plot Overlay Walker Lake
USGS

(3) Inst. Site Number 11336 (4) Site Name Wildhorse Canyon

I. Geologic Data

(5) Formation unknown

(6) Age Miocene (Hemingfordian)

(7) Additional Data: _____

II. Geographic Data

(8) Long. 118° 38' 10"W (9) Lat. 38° 47' 15"N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Gillis Canyon, Scale 1:62,500, Edition 1964

(16) Grid Coordinates S $\frac{1}{2}$ Section 30, T. 11N R. 30E

(17) Site Description _____

(18) Land Status BLM or Indian Lands

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X , NO , FIELD NUMBER R.W. Kopf (RWK-73-10)

(22) Where Housed U.S. Geol. Survey, Menlo Park

VII. Fossil Data Plant leaf impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-2 (2) B.L.M. Map and Plot Overlay Smith Valley

(3) Inst. Site Number PA-335 (4) Site Name Mickey Wash

Geologic Data

(5) Formation Morgan Ranch

(6) Age Pliocene (Hemphillian)

(7) Additional Data: _____

Geographic Data

(8) Long. 119° 10' 32" W (9) Lat. 38° 45' 10" N (10) State NV

(11) County Lyon (12) B.L.M. District Carson City

(13) Planning Unit Walker

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Yerington, Scale 1:62,500, Edition 1957

(16) Grid Coordinates SE_{1/4}/SW_{1/4} Section 3, T. 10N R. 25E

(17) Site Description Just south of road is white tuff overlain by buff-colored shale, in turn overlain by tuffaceous sandstone; leaves in shales. Beds strike NW, dip 35° SW.

(18) Land Status BLM

Sensitivity Evaluation (19) _____

S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/17/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

Plant leaf impressions.

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-3 (2) B.L.M. Map and Plot Overlay Smith Valley

(3) Inst. Site Number _____ (4) Site Name Desert Creek

Geologic Data

(5) Formation unnamed

(6) Age Miocene (Barstovian?)

(7) Additional Data: _____

Geographic Data

(8) Long. 119° 20' 30" W (9) Lat. 38° 42' 00" N (10) State NV

(11) County Lyon (12) B.L.M. District Carson City

(13) Planning Unit Walker

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Desert Creek Peak, Scale 1:62,500, Edition 1956

(16) Grid Coordinates SW_{1/4}/NW_{1/4} Section 30, T. 10N R. 24E

(17) Site Description _____

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 6/80, BY H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.S. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf impressions.

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-4 (2) B.L.M. Map and Plot Overlay Fallon

(3) Inst. Site Number _____ (4) Site Name Fallon

Geologic Data

(5) Formation Desert Peak

(6) Age Miocene (Clarendonian)

(7) Additional Data: _____

Geographic Data

(8) Long. 118° 59' 00" W (9) Lat. 39° 22' 30" N (10) State NV

(11) County Churchill (12) B.L.M. District Carson City

(13) Planning Unit Clark Alpine

(14) AMS Sheet Reno, Edition 1957

(15) Quad. Fallon, Scale 1:62,500, Edition 1951

(16) Grid Coordinates NE₄¹/NE₄¹ Section 32, T. 18N R. 27E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1956. Mio-Pliocene floras from west-central Nevada. Calif. Univ. Publ. Geol. Sci., v. 33.

VI. Field and Collection Data

(20) Field Check; YES _____, NO DATE _____, BY _____

(21) Fossils Collected; YES _____, NO _____, FIELD NUMBER _____

(22) Where Housed _____

VII. Fossil Data Plant leaf, seed and cone impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-5 (2) B.L.M. Map and Plot Overlay Carson City

(3) Inst. Site Number P (4) Site Name Chalk Hills

Geologic Data

(5) Formation Coal Valley

(6) Age Miocene (Clarendonian)

(7) Additional Data: _____

Geographic Data

(8) Long. 119° 34' 06" W (9) Lat. 39° 22' 55" N (10) State NV

(11) County Storey (12) B.L.M. District Carson City

(13) Planning Unit Pine Nut

(14) AMS Sheet Reno, Edition 1957

(15) Quad. Chalk Hills, Scale 1:24,000, Edition 1967

(16) Grid Coordinates NE_{1/4}/NW_{1/4}/SE_{1/4} Section 36, T. 18N R. 21E

(17) Site Description _____

(18) Land Status Patented Lands

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1962. A Pliocene Sequoiadendron forest from western Nevada.
Calif. Univ. Publ. Geol. Sic., v. 39, no. 3.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.S. Mus. Paleo., Berkeley

VII. Fossil Data

Plant leaf and seed impressions.

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

**CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262**

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-6 (2) B.L.M. Map and Plot Overlay Carson City

(3) Inst. Site Number _____ (4) Site Name _____ Sutro

Geologic Data

(5) Formation Alta Formation

(6) Age Miocene (Hemingfordian)

(7) Additional Data:

Geographic Data

(8) Long. $119^{\circ} 38' 02''$ W (9) Lat. $39^{\circ} 15' 43''$ N (10) State NV

(11) County Lyon (12) B.L.M. District Carson City

(13) Planning Unit Pine Nut

(14) AMS Sheet Reno . Edition 1957

(15) Quad. Virginia City Scale 1:24,000 Edition 1967

(16) Grid Coordinates SE¹/SW¹ Section 9 T 16N R. 21E

makes first sharp horseshoe turn at nose of hill. Fossils on uphill (N side).

(18) Land Status **Patented Lands**

5-1452
V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1949. Eocene and Oligocene formations in the western Great Basin (Abs.). Geol. Soc. Amer. Bull. 60: 1935-1936.

Giannella, V.P., 1936. Geology of the Silver City District and the southern portions of the Comstock Lode. Nevada Univ. Bull., v. 30, no. 9.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf impressions.

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-7 (2) B.L.M. Map and Plot Overlay _____ Reno(3) Inst. Site Number P (4) Site Name _____ Verdi

Geologic Data

(5) Formation Coal Valley(6) Age Pliocene (Hemphillian)

(7) Additional Data: _____

Geographic Data

(8) Long. 119° 57' 39"W (9) Lat. 39° 31' 07"N (10) State NV(11) County Washoe (12) B.L.M. District Carson City(13) Planning Unit Pyramid(14) AMS Sheet Reno, Edition 1957(15) Quad. Verdi, Scale 1:24,000, Edition 1967(16) Grid Coordinates NW_{1/4}/NW_{1/4}/NE_{1/4} Section 16, T. 19N R. 18E(17) Site Description In railroad cut on south side of tracks in tuffaceous sandstone and white diatomite.(18) Land Status Patented Lands

Sensitivity Evaluation (19) _____ S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1958. The Pliocene Verdi flora of western Nevada. Calif. Univ. Publ. Geol. Sci., v. 34, no. 2.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 4/2/80, BY J. Firby
(21) Fossils Collected; YES X, NO , FIELD NUMBER
(22) Where Housed U.S. Mus. Paleo., Berkeley; Mackay School of Mines Mus., U.N.R. Reno

VII. Fossil Data

Plant leaf, seed and cone impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-8 (2) B.L.M. Map and Plot Overlay _____ Reno
(3) Inst. Site Number _____ (4) Site Name Pyramid

Geologic Data

(5) Formation unnamed Truckee?
(6) Age Miocene (Barstovian)
(7) Additional Data: _____

Geographic Data

(8) Long. 119° 36' 30"W (9) Lat. 39° 53' 30"N (10) State NV
(11) County Washoe (12) B.L.M. District Carson City
(13) Planning Unit Pyramid
(14) AMS Sheet Reno, Edition 1957
(15) Quad. Sutcliffe, Scale 1:62,500, Edition 1957
(16) Grid Coordinates NE¹/SW¹ Section 4, T. 23N R. 21E
(17) Site Description _____

(18) Land Status BLM
Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1966. Potassium-Argon ages of some western Tertiary floras.
Am. J. Sci., 264: 497-506.

Bonham, H.F., 1969. Geology and mineral deposits of Washoe and Storey
counties, Nevada. Nev. Bur. Mines Geol. Bull. 70: 131.

VI. Field and Collection Data

(20) Field Check; YES NO _____ DATE 6/18/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley; Mackay School Mines Mus., U.N.R., Reno.

VII. Fossil Data Plant leaf and seed impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-9 (2) B.L.M. Map and Plot Overlay Smith Creek

(3) Inst. Site Number _____ (4) Site Name Middlegate

Geologic Data

(5) Formation Middlegate

(6) Age Miocene (Hemingfordian)

(7) Additional Data: _____

Geographic Data

(8) Long. 117° 57' 58"W (9) Lat. 39° 19' 13"N (10) State NV

(11) County Churchill (12) B.L.M. District Carson City

(13) Planning Unit Clan Alpine

(14) AMS Sheet Millet, Edition 1955

(15) Quad. Eastgate, Scale 1:24,000, Edition 1969

(16) Grid Coordinates SE₄ Section 19, T. 17N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1956. Mio-Pliocene floras from west-central Nevada. Calif. Univ. Publ. Geol. Sci., v. 33.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 6/19/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf and seed impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-10 (2) B.L.M. Map and Plot Overlay Smith Creek

(3) Inst. Site Number _____ (4) Site Name Eastgate

Geologic Data

(5) Formation Middlegate

(6) Age Miocene (Hemingfordian)

(7) Additional Data: _____

Geographic Data

(8) Long. 117° 53' 45" W (9) Lat. 39° 16' 17" N (10) State NV

(11) County Churchill (12) B.L.M. District Carson City

(13) Planning Unit Clan Alpine

(14) AMS Sheet Millett, Edition 1955

(15) Quad. Eastgate, Scale 1:24,000, Edition 1969

(16) Grid Coordinates SW $\frac{1}{4}$ /SE $\frac{1}{4}$ Section 2, T. 16N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/19/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf and seed impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-11 (2) B.L.M. Map and Plot Overlay Ione Valley
UCMP

(3) Inst. Site Number PA 333 (4) Site Name "Diatomite Ridge"

Geologic Data

(5) Formation "Esmeralda"

(6) Age Miocene (Clarendonian)

(7) Additional Data:

Geographic Data

(8) Long. 117° 56' 37" W (9) Lat. 37° 37' N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim. (no date)

(16) Grid Coordinates SW₄¹ Section 23, T. 9N R. 36E (unsurveyed)

(17) Site Description In middle part of exposed diatomaceous shale unit just west of dirt road and just before road goes over the crest of ridge, 1.2 mi. W/ 2 mi. N of Stewart Spring.

(18) Land Status _____

Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES NO _____ DATE 8/10/80 BY H. Schorn
(21) Fossils Collected; YES NO _____, FIELD NUMBER HES 69/5
(22) Where Housed Univ. Calif. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-12 (2) B.L.M. Map and Plot Overlay UCMP Ione Valley
(3) Inst. Site Number PA-340 (4) Site Name Goldyke Road

Geologic Data

(5) Formation "Esmeralda"
(6) Age Miocene (Barstovian)
(7) Additional Data: Lateral equivalent of Fingerrock flora described by Wolfe, 1964,
U.S. Geol. Survey Prof. Paper 45-N. Is under study by D.I. Axelroad, Univ.
Calif., Davis.

Geographic Data

(8) Long. 117° 55' W (9) Lat. 38° 36' 5" N (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1956
(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition 1956
(16) Grid Coordinates NE₄¹ Section 36, T. 9N R. 36E (unsurveyed)
(17) Site Description In light buff-colored shales on NNE side of small hill just
east of dirt road leading past Stewart Spring to Goldyke site. 0.2 mi. E/
0.8 mi. N. of Stewart Spring.

(18) Land Status _____

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

None - is lateral equivalent of Fingerrock flora, see:

Wolfe, J.A., 1964. Miocene floras from Fingerrock Wash, southwestern Nevada. U.S. Geol. Survey Prof. Paper 454-N.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 8/11/80, BY H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER HES 80/7
(22) Where Housed U.S. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-13 (2) B.L.M. Map and Plot Overlay Ione Valley
 UCMP
 (3) Inst. Site Number PA-99 (4) Site Name Fingерrock

Geologic Data

(5) Formation "Esmeralda"
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Flora is presently under study by D.I. Axelrod, Univ. Calif.,
Davis

Geographic Data

(8) Long. 117° 56' 10" W (9) Lat. 38° 36' 04" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1956
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim. (no date)
 (16) Grid Coordinates NE¹/₄ Section 35, T. 9N R. 36E (unsurveyed)
 (17) Site Description Main locality in dense buff-colored shales on south side of
small drainage. 0.8 mi. W/0.8 mi. N of Stewart Spring.
 (18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Wolfe, J.A., 1964. Miocene floras from Fingerring Wash, southwestern Nevada. U.S. Geol. Survey Prof. Paper 454-N.

VI. Field and Collection Data

(20) Field Check; YES NO _____ DATE 8/10/80 BY H. Schorn
(21) Fossils Collected; YES NO _____, FIELD NUMBER HES 80/6
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-14 (2) B.L.M. Map and Plot Overlay Ione Valley
UCMP

(3) Inst. Site Number PA-203 (4) Site Name Stewart Valley

Geologic Data

(5) Formation "Esmeralda"

(6) Age Miocene (Barstovian)

(7) Additional Data: Flora presently under study by H. Schorn, Univ. Calif.
Berkeley.

Geographic Data

(8) Long. 117° 56' 15" W (9) Lat. 38° 35' 14" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim. (no date)

(16) Grid Coordinates SW $\frac{1}{4}$ /SE $\frac{1}{4}$ Section 35, T. 9N R. 36E (unsurveyed)

(17) Site Description Approximately 1400' west of main road in Fingerrock Wash, on east-
facing slope where beds dip about 10° SW. 1 mi. W/ 0.1 $\frac{1}{2}$ mi. S. of Stewart
Spring.

(18) Land Status BLM

Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Wolfe, J.A., 1964. Miocene floras from Fingerrock Wash, southwestern Nevada.
U.S. Geol. Survey Prof. Paper 454-N.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 8/9/80, BY H. Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER 1968, 69, 70, 80
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-15 (2) B.L.M. Map and Plot Overlay Ione Valley
 UCMP
 (3) Inst. Site Number PA-327 (4) Site Name Stewart Valley - Two Tips

Geologic Data

(5) Formation "Esmeralda"
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Flora presently under study by H. Schorn, Univ. Calif.,
Berkeley.

Geographic Data

(8) Long. 117° 56' 20" W (9) Lat. 38° 36' 38" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1956
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim. (no date)
 (16) Grid Coordinates Center Section 26, T. 9N R. 36E (unsurveyed)
 (17) Site Description From dark brown siliceous shales exposed on SW side of small
hill approximately 500 feet east of main road in Fingerrock Wash. 1.05 mi. W/
1.5 mi. N of Stewart Spring.

(18) Land Status BLM

Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Wolfe, J.A., 1964. Miocene floras from Fingerrock Wash, southwestern Nevada. U.S. Geol. Survey Prof. Paper 454-N. (None of Wolfe's material from this site).

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 8/9/80, BY Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER 1968, 69, 60, 78, 80
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-16 (2) B.L.M. Map and Plot Overlay Ione Valley
UCMP

(3) Inst. Site Number PA-341 (4) Site Name Stewart Valley - Upper

Geologic Data

(5) Formation "Esmeralda"

(6) Age Miocene (Barstovian)

(7) Additional Data: Flora presently under study by H. Schorn, Univ. Calif.
Berkeley.

Geographic Data

(8) Long. 117° 56' 37" W (9) Lat. 38° 35' 15" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim. (no date)

(16) Grid Coordinates SE₄/SW₄, Section 35, T. 9N R. 36E (unsurveyed)

(17) Site Description On small nose between two minor drainages about 1000 feet NW
of hill that is west of Fingerrock - Stewart Spring road junction. 1.3 mi W
of Stewart Spring.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Wolfe, J.A., 1964. Miocene floras from Fingerrock Wash, southwestern Nevada. U.S. Geol. Survey Prof. Paper 454-N. (None of Wolfe's material from this site).

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 8/9/80, BY H. Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER 1968, 69, 78, 80
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-17 (2) B.L.M. Map and Plot Overlay Walker Lake
(3) Inst. Site Number P-3917 (4) Site Name Lewis Coal Mine

Geologic Data

(5) Formation Coal Valley
(6) Age Miocene (Clarendonian)
(7) Additional Data: See Figure 2 of Axelrod, 1956, U.C. Publ. Geol. Sci., v. 33,
for plot of locality on geologic map.

Geographic Data

(8) Long. 118° 55' 2" W (9) Lat. 38° 30' 20" N (10) State NV
(11) County Lyon (12) B.L.M. District Carson City
(13) Planning Unit Walker
(14) AMS Sheet Walker Lake, Edition 1964
(15) Quad. Mt. Grant, Scale 1:62,500, Edition 1956
(16) Grid Coordinates NE₄¹/SW₄¹ Section 36, T. 8N R. 27E
(17) Site Description From old abandoned coal mine on north side of Lewis
Terrace Hill

(18) Land Status Patented Land
Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Berry, E.W., 1927. Flora of the Esmeralda Formation in western Nevada.
U.S. Nat. Mus. Proc., v. 72, art. 23.

Axelrod, D.I., 1956. Mio-Pliocene floras from west-central Nevada, U.C.
Publ. Geol. Sci., v. 33. See especially Figure 2 of fold-out plates
in pocket at back of publication.

Gilbert, C.M. and M.W. Reynolds, 1973. Character and chronology of Basin
development, western margin of the Basin and Range province. Geol.
Soc. Amer. Bull. 84: 2389-2510.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X , NO , FIELD NUMBER Axelrod, 1939 and FF.

(22) Where Housed U.S. Nat. Mus.; U.C. Mus. Paleo, Berkeley.

VII. Fossil Data

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-18 (2) B.L.M. Map and Plot Overlay Excelsior Mt.
UCMP

(3) Inst. Site Number P-3915 (4) Site Name Horsethief Canyon

Geologic Data

(5) Formation Aldrich Station

(6) Age Miocene (Barstovian)

(7) Additional Data: See Figure 2 of Axelrod, 1956, U.C. Publ. Geol. Sci., v. 33,
for plot of locality on geologic map.

Geographic Data

(8) Long. 118° 52' 20" W (9) Lat. 38° 29' 30" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Aurora, Scale 1:62,500, Edition 1956

(16) Grid Coordinates SE_{1/4}/SW_{1/4} Section 5, T. 7N R. 28E

(17) Site Description In valley cut by Horsethief drainage, approximately 2000 feet
due east of Aldrich Hill

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1956. Mio-Pliocene floras from west-central Nevada. Univ. Calif. Publ. Geol. Sci., v. 33. See especially Figure 2 of fold-out plates in pocket at back of publication.

Gilbert, C.M. and M.W. Reynolds, 1973. Character and chronology of Basin development, western margin of the Basin and Range province. Geol. Soc. Amer. Bull. 84: 2489-2510.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY
(21) Fossils Collected; YES X , NO , FIELD NUMBER Axelrod, 1939 and ff.
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-19 (2) B.L.M. Map and Plot Overlay Excelsior Mt.
UCMP

(3) Inst. Site Number P-3916 (4) Site Name Aldrich Station

Geologic Data

(5) Formation Aldrich Station

(6) Age Miocene (Barstovian)

(7) Additional Data: See Figure 2 of Axelrod, 1956, U.C. Publ. Geol. Sci., v. 33,
for plot of locality on geologic map.

Geographic Data

(8) Long. 118° 53' 10" W (9) Lat. 38° 29' 50" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Aurora, Scale 1:62,500, Edition 1956

(16) Grid Coordinates SE₁¹/NE₁¹ Section 6, T. 7N R. 28E

(17) Site Description From buff-colored diatomaceous shales approximately
1000 feet north of Aldrich Hill.

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Axelrod, D.I., 1956. Mio-Pliocene floras from west-central Nevada. Univ. Calif. Publ. Geol. Sci., v. 33. See especially Figure 2 of fold-out plates in pocket at back of publication.

Gilbert, C.M. and M.W. Reynolds, 1973. Character and chronology of basin development, western margin of the Basin and Range province. Geol. Soc. Amer. Bull. 84: 2489-2510.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X NO , FIELD NUMBER Axelrod, 1939 and FF.

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data

Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-20 (2) B.L.M. Map and Plot Overlay UCMP Reno
(3) Inst. Site Number PA-481 (4) Site Name Olinghouse

Geologic Data

(5) Formation Chloropagus
(6) Age Miocene (Barstovian)
(7) Additional Data: _____

Geographic Data

(8) Long. 119° 25' 40" W (9) Lat. 39° 38' N (10) State NV
(11) County Washoe (12) B.L.M. District Carson City
(13) Planning Unit Pyramid
(14) AMS Sheet Reno, Edition 1957
(15) Quad. Wadsworth, Scale 1:62,500, Edition 1957
(16) Grid Coordinates NW₄, Section 5, T. 20N, R. 23E
(17) Site Description In Pierson Canyon just south of Olinghouse site in dark-colored
carbonaceous shales.

(18) Land Status Patented Land
(19) Sensitivity Evaluation S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Bonham, H.F., 1969.. Geology and mineral deposits of Washoe and Storey counties, Nevada Nevada Bur. Mines Geol. Bull. 70: 30.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 7/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER Axelrod and Schorn 1965

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-21 (2) B.L.M. Map and Plot Overlay Reno

UCMP

(3) Inst. Site Number PA-482 (4) Site Name Purple Mountain

Geologic Data

(5) Formation Chloropagus

(6) Age Miocene (Barstovian)

(7) Additional Data: _____

. Geographic Data

(8) Long. 119° 23' W (9) Lat. 39° 36' N (10) State NV

(11) County Washoe (12) B.L.M. District Carson City

(13) Planning Unit Pyramid

(14) AMS Sheet Reno, Edition 1957

(15) Quad. Wadsworth, Scale 1:62,500, Edition 1957

(16) Grid Coordinates SE₄¹ Section 15, T. 20N R. 23E

(17) Site Description In buff-colored shales on small nose just south of access
road along power lines.

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Bonham, H.F., 1969. Geology and mineral deposits of Washoe and Storey counties, Nevada. Nevada Bur. Mines Geol. Bull. 70: 30.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 4/2/80, BY J. Firby
(21) Fossils Collected; YES X, NO , FIELD NUMBER Axelrod and Schorn 1965
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

**PALEONTOLOGICAL RESOURCES INVENTORY
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**CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262**

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-22 (2) B.L.M. Map and Plot Overlay Reno
UCMP
(3) Inst. Site Number PA-429 (4) Site Name Hungary Valley (or Mansfield Ranch)

Geologic Data

(5) Formation _____ unnamed

(6) Age _____ Miocene (Clarendonian)

(7) Additional Data: _____

I. Geographic Data

(8) Long. 119° 43' W (9) Lat. 39° 45' 30" N (10) State NV
(11) County Washoe (12) B.L.M. District Carson City
(13) Planning Unit Pyramid
(14) AMS Sheet Reno, Edition 1957
(15) Quad. Sutcliff, Scale 1:62,500, Edition 1957
(16) Grid Coordinates NE $\frac{1}{4}$ Section 22, T. 22N R. 20E
(17) Site Description Picked up mostly as weathered-out material from hard silicified
shales on east side of road approximately one mile south of Mansfield Ranch.

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Bonham, H.F., 1969. Geology and mineral deposits of Washoe and Storey counties, Nevada. Nevada Bur. Mines Geol. Bull. 70: 37-38.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE 4/2/80, BY J. Firby

(21) Fossils Collected; YES NO _____, FIELD NUMBER Axelrod and Schorn 1965

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-23 (2) B.L.M. Map and Plot Overlay Reno
 UCMP

(3) Inst. Site Number P-3947 (4) Site Name Hazen

Geologic Data

(5) Formation Truckee

(6) Age Pliocene (Hemphillian)

(7) Additional Data: Very small collection, leaves extremely rare (Fide, D.I.
Axelrod, Per. Comm., 1965).

Geographic Data

(8) Long. 119° 3' W (9) Lat. 39° 35' 10" N (10) State NV

(11) County Churchill (12) B.L.M. District

(13) Planning Unit Clan Alpine

(14) AMS Sheet Reno, Edition 1957

(15) Quad. Two Tips, Scale 1:62,500, Edition 1957

(16) Grid Coordinates NE $\frac{1}{4}$ Section 22, T. 20N R. 26E

(17) Site Description From blow out sites on east side of Black Butte Ridge.

(18) Land Status BLM

. Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE , BY H. Schorn and J. Firby
(21) Fossils Collected; YES X, NO , FIELD NUMBER Axeirod 1939
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-24 (2) B.L.M. Map and Plot Overlay In Calif. West of Reno Sheet
UCMP
(3) Inst. Site Number PA-439 (4) Site Name Long Valley (or Red Rock)

Geologic Data

(5) Formation unnamed
(6) Age Miocene (Clarendonian)
(7) Additional Data: _____

Geographic Data

(8) Long. 120° 3' W (9) Lat. 39° 53' 35" N (10) State CA
(11) County Plumas (12) B.L.M. District Carson City
(13) Planning Unit Long Valley
(14) AMS Sheet Chico, Edition 1958
(15) Quad. Constantia, Scale 1:24,000, Edition 1977
(16) Grid Coordinates NW₄/SE₄ Section 25, T. 24N R. 17E
(17) Site Description On west side of Western Pacific tracks in railroad cut,
beds dip approximately 30° NW.

(18) Land Status BLM
(19) Sensitivity Evaluation S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Bonham, H.F., 1969. Geology and Mineral deposits of Washoe and Storey counties, Nevada. Nevada Bur. Mines Geol. Bull. 70: 37.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 4/2/80 BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER Axelrod 1954

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-25 (2) B.L.M. Map and Plot Overlay Smith Creek Valley
UCMP
(3) Inst. Site Number PA-291 (4) Site Name Buffalo Canyon

Geologic Data

(5) Formation unnamed
(6) Age Miocene (Hemingfordian)
(7) Additional Data: _____

Geographic Data

(8) Long. 117° 47' 31" W (9) Lat. 39° 12' 10" N (10) State NV
(11) County Churchill (12) B.L.M. District Carson City
(13) Planning Unit Clan Alpine
(14) AMS Sheet Millett, Edition 1956
(15) Quad. Buffalo Summit, Scale 1:24,000, Edition 1969
(16) Grid Coordinates SE¹/₄ SE¹/₄ Section 34, T. 16N R. 37E
(17) Site Description In white to buff-colored diatomaceous shales just NE of wire
fence corral. Near bottom of section of exposed sedimentary rocks.

(18) Land Status BLM
(19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE , BY H. Schorn

(21) Fossils Collected; YES X, NO , FIELD NUMBER Axelrod and Schorn 1965

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf flora impressions.

PALEONTOLOGICAL RESOURCES INVENTORY

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-27 (2) B.L.M. Map and Plot Overlay _____ Carson City
none
(3) Inst. Site Number known (4) Site Name _____

Geologic Data

(5) Formation unnamed
(6) Age Miocene?
(7) Additional Data: _____

Geographic Data

(8) Long. 119° 21' 20"W (9) Lat. 39° 15' 30"N(approx.) (10) State NV

(11) County Lyon (12) B.L.M. District Carson City

(13) Planning Unit Pine Nut

(14) AMS Sheet Reno, Edition _____

(15) Quad. Churchill Butte, Scale 1:62,500, Edition 1957

(16) Grid Coordinates _____ Section 12/13, T. 16N R. 23E

(17) Site Description _____

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Lawler, D., 1978. Pine Nut Planning Unit: Paleo. Resources. PN-WP.

VI. Field and Collection Data

(20) Field Check; YES _____, NO X _____, DATE _____, BY _____

(21) Fossils Collected; YES _____, NO x _____, FIELD NUMBER _____

(22) Where Housed _____

VII. Fossil Data

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-28 (2) B.L.M. Map and Plot Overlay Ione Valley

UCMP

(3) Inst. Site Number (PA-13) (4) Site Name Savage Canyon Wood

Geologic Data

(5) Formation "Esmeralda"

(6) Age Miocene (Barstovian)

(7) Additional Data: _____

I. Geographic Data

(8) Long. 117° 56' 44"W (9) Lat. 38° 35' 51"N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates N $\frac{1}{4}$ /NW $\frac{1}{4}$ Section 35, T. 9N R. 36E

(17) Site Description Fossil stumps in growth position, on east-facing slope on
north side of wash in "Savage Canyon"

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 9/25/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Petrified wood.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

**CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262**

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-29 (2) B.L.M. Map and Plot Overlay Ione Valley
UCMP (temp.)
(3) Inst. Site Number PA-A (4) Site Name Snail Cliff Wood

Geologic Data

(5) Formation "Esmeralda"
(6) Age Miocene (Barstovian)
(7) Additional Data: Tree trunks in place - weathering out of low
siltstone ridge.

Geographic Data

(8) Long. 117° 56' 15" W (9) Lat. 38° 34' 26" N (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1956
(15) Quad. Goldyke 3SW, Scale 1:24,000, Edition Prelim.
(16) Grid Coordinates NW₄¹/NW₄¹/SE₄¹ Section 26, T. 9N R. 36E
(17) Site Description _____

(18) Land Status BLM
Sensitivity Evaluation (19) _____ S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 9/25/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Petrified wood.

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-30 (2) B.L.M. Map and Plot Overlay Ione Valley
UCMP (temp.)
(3) Inst. Site Number PA-C (4) Site Name Pacific Union Plant Site

Geologic Data

(5) Formation "Esmeralda"
(6) Age Miocene (Barsotvian)
(7) Additional Data: _____

Geographic Data

(8) Long. 117° 56' 33"W (9) Lat. 38° 34' 33"N (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Walker Lake, Edition 1964
(15) Quad. Goldyke 3SW, Scale 1:24,000, Edition Prelim.
(16) Grid Coordinates SE¹/₄ / NE¹/₄ / SW¹/₄ Section 2, T. 8N R. 36E
(17) Site Description _____

(18) Land Status BLM
Sensitivity Evaluation (19) S-1

-1894

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 9/24/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Plant leaf and seed impressions.

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-31 (2) B.L.M. Map and Plot Overlay Smith Valley
none
(3) Inst. Site Number known (4) Site Name Gilbert

Geologic Data

(5) Formation unnamed
(6) Age Miocene?
(7) Additional Data: _____

Geographic Data

(8) Long. 119° 38' 10"W (9) Lat. 38° 54' 15"N(approx.) (10) State NV
(11) County Douglas (12) B.L.M. District Carson City
(13) Planning Unit Pine Nut
(14) AMS Sheet Walker Lake, Edition 1964
(15) Quad. Gardnerville, Scale 1:24,000, Edition 1968
(16) Grid Coordinates _____ Section 18, T. 12N R. 21E
(17) Site Description _____

(18) Land Status Rec. Land Withdrawal
(19) Sensitivity Evaluation _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Lawler, D., 1978. Pine Nut Planning Unit: Paleo. Resources, PN-WP.

VI. Field and Collection Data

(20) Field Check; YES _____, NO X, DATE _____, BY _____

(21) Fossils Collected; YES _____, NO X, FIELD NUMBER _____

(22) Where Housed _____

VII. Fossil Data

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-32 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number PA-Attemp (4) Site Name Snail Cliff Wood

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Fossil tree trunks in life position in brown gypsiferous
silt. Excellent preservation.

Geographic Data

(8) Long. 117° 56' 15" W (9) Lat. 38° 36' 26" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW₄¹/NW₄¹/SE₄¹ Section 26, T. 9N R. 36E

(17) Site Description

(18) Land Status BLM

. Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 8/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Fossil Wood

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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number P-33 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number PA-2temp (4) Site Name Savage Canyon "Petrified Forest"

II. Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: _____

III. Geographic Data

(8) Long. 117° 56' 44" W (9) Lat. 38° N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW_{1/4}/NW_{1/4} Section 35, T. 9N R. 36E

(17) Site Description _____

(18) Land Status BLM

IV. Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE _____, BY H. Schorn

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Fossil Wood

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER AND SENSITIVITY EVALUATION

Invertebrate Fossil Sites

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-1 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number _____ (4) Site Name Pacific Union Insect 1

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Insects preserved on bedding planes of paper shales. Same
general locality as Pacific Union Plant and Fish localities.

I. Geographic Data

(8) Long. 117° 56' 23" W (9) Lat. 38° 34' 33" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet _____, Edition _____
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SE $\frac{1}{4}$ /NE $\frac{1}{4}$ /SW $\frac{1}{4}$, Section 2, T. 8N, R. 36E
 (17) Site Description _____

(18) Land Status BLM
 . Sensitivity Evaluation (19) S-1

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 6/80 BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed _____ U.C. Mus. Paleo., Berkeley

VII. Fossil Data Fossil insects well preserved by carbonization on bedding planes of paper shale.

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CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-2 (2) B.L.M. Map and Plot Overlay Tonopah
(3) Inst. Site Number B-8773 (4) Site Name _____

Geologic Data

(5) Formation Luning
(6) Age Triassic (Karnian)
(7) Additional Data: Platy limestones at extreme western exposure of Luning
formation on east bank of stream.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates NW¹/₄ / SW¹/₄ Section 10, T. 7N R. 37E
(17) Site Description _____

(18) Land Status BLM
Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____ BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates:

Nuculana sp.
Myophoria whatleyae
M. costata?

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-3 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-8775 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Massive and platy limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4}/SE_{1/4}, Section 11, T. 7N R. 37E

(17) Site Description Both massive and platy limestones in middle of saddle and south slope of saddle.

(18) Land Status BLM

. Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J.R. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine molluska

Original collection by Hugh H. Mottern, Jr. on 9/26/61.

Bivalves: Septocardia cardiformis

Cephalopoda: Klamathites sp.

Tropites sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-4 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-8774 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy limestone

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NW_{1/4}/SW_{1/4} Section 11, T. 7N R. 37E

(17) Site Description Platy limestone on north slope of saddle mentioned in locality

I-3, this report.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Brachiopoda
Terabratula sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-5 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-8776 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic

(7) Additional Data: Limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE $\frac{1}{4}$ /NE $\frac{1}{4}$ Section 14, T. 7N R. 37E

(17) Site Description Flat lying limestones on east side of streambed.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X , NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Brachiopoda.
Terabratula sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-6 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5863 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic

(7) Additional Data: Limestones and interbedded argillites

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE¹/₄ NW¹/₄ Section 12, T. 7N R. 37E

(17) Site Description On south facing slope just below massive limestones.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo.

VII. Fossil Data Marine Invertebrates

Bivalves:

Pholodomya sp.
Mytilus sp.
Myophora whatleyae
Alectroyonia
Lima sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-7 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5864 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE₄/NE₄ Section 14, T. 7N R. 37E

(17) Site Description East bank of streambed

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE _____ BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Terabratula sp.

Dilasma sp.

Thecosmila sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-8 (2) B.L.M. Map and Plot Overlay _____ Tonopah

(3) Inst. Site Number B-5865 (4) Site Name _____

Geologic Data

(5) Formation Luning _____

(6) Age Triassic (Karnian) _____

(7) Additional Data: Massive Limestone Bed _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV _____

(11) County Mineral _____ (12) B.L.M. District Carson City _____

(13) Planning Unit Mina _____

(14) AMS Sheet Tonopah _____, Edition 1962 _____

(15) Quad. Tonopah _____, Scale 1:250,000 _____, Edition 1959 _____

(16) Grid Coordinates NW¹/SW¹ _____ Section 12 _____, T. 7N _____ R. 37E _____

(17) Site Description North bank of streambed - in massive limestone _____

(18) Land Status BLM _____

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Brachiopoda
Rhyncronella sp.

Mollusca
Cephalopoda
Frichites sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-9 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5866 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy Limestone

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE₄¹/NE₄², Section 11, T. 7N R. 37E

(17) Site Description West side of streambed.

(18) Land Status BLM

. Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca
Cephalopoda
 Klamathites schucherti
Bivalvia
 Myophora sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-10 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5867 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy limestone

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE¹/₄/NW¹/₄ Section 11, T. 7N R. 37E

(17) Site Description South bank of streambed.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY
(21) Fossils Collected; YES X NO , FIELD NUMBER
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Marine Invertebrates

Mollusca
Cephalopoda
Nautiloidea (undetermined)

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-11 (2) B.L.M. Map and Plot Overlay Tonopah
(3) Inst. Site Number B-5868 (4) Site Name _____

I. Geologic Data

(5) Formation Luning
(6) Age Triassic (Karnian)
(7) Additional Data: Massive limestone

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates SW_{1/4}/SW_{1/4} Section 2, T. 7N R. 37E
(17) Site Description Massive unit on crest of peak.

(18) Land Status BLM

V. Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca
Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

I. Site Number, Name and Institutional Site Number

(1) Number I-12 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5869 (4) Site Name _____

II. Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy limestones

III. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE¹/₄ SE¹/₄ Section 3, T. 7N R. 37E

(17) Site Description West bank of streambed

(18) Land Status BLM

IV. Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962.. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES _____, NO X, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data No identifiable fossils found.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-13 (2) B.L.M. Map and Plot Overlay Tonopah
(3) Inst. Site Number B-5870 (4) Site Name _____

Geologic Data

(5) Formation Luning
(6) Age Triassic (Karnian)
(7) Additional Data: Platy Limestone

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates SE¹/₄ / NE¹/₄ Section 4, T. 7N R. 37E
(17) Site Description East bank of streambed.

(18) Land Status BLM
Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca

Cephalopoda

Klamathites schucherti

Brachiopoda

Inarticulata

Lineula sp.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-14 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5871 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy Limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE₄/NW₄ Section 2, T. 7N R. 37E

(17) Site Description North slope of hill.

(18) Land Status BLM

. Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca

Bivalvia: Myophora costata

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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-15 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5872 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy Limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE_{1/4}/NW_{1/4} Section 2, T. 7N R. 37E

(17) Site Description Platy limestones on east bank of streambed.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X , NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Marine Invertebrates

Mollusca

Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-16 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5873 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: Platy Limestones

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4}/NE_{1/4} Section 3, T. 7N R. 37E

(17) Site Description East bank of streambed.

(18) Land Status _____

Sensitivity Evaluation (19) _____

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V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____ BY H. Schorn

(21) Fossils Collected; YES _____, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca
Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-17 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5874 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE $\frac{1}{4}$ /NW $\frac{1}{4}$ Section 2, T. 7N R. 37E

(17) Site Description On crest of limestone ridge just above quartzites.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

-250-

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES , NO X , DATE , BY

(21) Fossils Collected; YES X , NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca
Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-18 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5875 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE¹/₄/NW¹/₄ Section 11, T. 7N R. 37E

(17) Site Description Platy limestone in streambed.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962.. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE _____, BY H. Schorn

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed _____ U.C. Mus. of Paleo., Berkeley.

VII. Fossil Data Marine Invertebrates

Mollusca
Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-19 (2) B.L.M. Map and Plot Overlay Tonopah(3) Inst. Site Number B-5876 (4) Site Name _____

Geologic Data

(5) Formation Luning(6) Age Triassic (Karnian)(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV(11) County Mineral (12) B.L.M. District Carson City(13) Planning Unit Mina(14) AMS Sheet Tonopah, Edition 1962(15) Quad. Tonopah, Scale 1:250,000, Edition 1959(16) Grid Coordinates SE $\frac{1}{4}$ /NW $\frac{1}{4}$ Section 11, T. 7N R. 37E(17) Site Description In platy limestone just below massive limestones at
bottom of slope, in streambed.(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY H. Schorn

(21) Fossils Collected; YES _____, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca
 Bivalvia
 Gastropoda

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-20 (2) B.L.M. Map and Plot Overlay Tonopah
(3) Inst. Site Number B-5877 (4) Site Name _____

Geologic Data

(5) Formation Luning
(6) Age Triassic (Karnian)
(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates NW_{1/4}/NW_{1/4} Section 14, T. 7N R. 37E
(17) Site Description Massive and platy limestone at westernmost exposure
of Luning formation, on the slope.

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES x, NO _____, DATE _____, BY J. Firby and H. Schorn

(21) Fossils Collected; YES x, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Marine Invertebrates

Mollusca

 Cephalopoda

 Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-21 (2) B.L.M. Map and Plot Overlay Tonopah

(3) Inst. Site Number B-5878 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic (Karnian)

(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE_{1/4}/SW_{1/4} Section 10, T. 7N R. 37E

(17) Site Description Platy limestones at northernmost exposure

of Luning formation, in streambed.

(18) Land Status BLM

Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Jr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check: YES NO DATE BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Marine Invertebrates.

Mollusca Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-22 (2) B.L.M. Map and Plot Overlay _____ Tonopah

(3) Inst. Site Number B-2602 (4) Site Name _____

Geologic Data

(5) Formation Luning

(6) Age Triassic

(7) Additional Data: _____

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE¹/₄ / SE¹/₄ / NW¹/₄ Section 4, T. 7N R. 37E

(17) Site Description From partly silicified limestone outcropping on west bank of
small gully and along strike to west for about 50 yards.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Mottern, H.H., Mr., 1962. Pre-Tertiary geology of a portion of Cedar Mountain, Nevada. M.A. thesis, Univ. Calif., Berkeley.

VI. Field and Collection Data

(20) Field Check; YES _____, NO X, DATE _____, BY _____

(21) Fossils Collected; YES _____, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Calif. Mus. Paleo., Berkeley

VII. Fossil Data

Marine Invertebrates

Porifera

Mollusca

Bivalvia

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-23 (2) B.L.M. Map and Plot Overlay Ione Valley
(3) Inst. Site Number B-2050 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda
(6) Age Miocene (Barstovian)
(7) Additional Data: Near shore lacustrine habitat. Abundant well preserved fossil
mollusca. Well-indurated, poorly sorted tuffaceous sandstones.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Nye (12) B.L.M. District Adjacent to Carson City
(13) Planning Unit _____
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
(16) Grid Coordinates NW/Center Section 21, T. 9N R. 38E
(17) Site Description Along County road to Mina 5.6 miles west from junction
with Nevada State Highway 89, about 500 feet north of road.

(18) Land Status BLM
Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine Mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci. Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/20/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks - numerous taxa represented here.

Ostracods

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-24 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number B-2051 (4) Site Name "Snail Cliff"

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Extremely fine and rare preservation of non-marine mollusks.
 Abundant ostracoda also occur in this sequence of deltaic foreset and bottom
 set strata. Thirty-four taxa of mollusks represented here.

Geographic Data

(8) Long. 117° 56' 16" W (9) Lat. 38° 36' 26" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SW $\frac{1}{4}$ Section 26, T. 9N R. 36E
 (17) Site Description Exposed deltaic bedding on east side of road through
Stewart Valley. Fossil mollusks occur in sequence of foreset beds.

(18) Land Status BLM
 Sensitivity Evaluation (19) S-1

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci. Proc., v. 34, no. 14

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 11/20/80 BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine Mollusks (34 species)

Ostracods

This locality is the type locality for several of the species described in Firby, 1966.

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-25 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number B-2052 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Clarendonian)
 (7) Additional Data: Moderately well-indurated grey tuffaceous sandstone.
Thickly bedded. Abundant non-marine mollusks, also abundant ostracods.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
 (11) County Nye (12) B.L.M. District Adjacent to Carson City
 (13) Planning Unit _____
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 NE, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates Center Section 15, T. 8N R. 38E
 (17) Site Description West from junction of Nevada 89, 2.5 miles along road toward
Mina, just south of road in low bluff. This road known in older literature
as the Bell Springs - Black Springs stage road.
 (18) Land Status BLM
 . Sensitivity Evaluation (19) _____ S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci. Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/20/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-26 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number B-2053 (4) Site Name Opposite Tedford Pocket

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Coarse grained, well-indurated tuffaceous sandstone with
indistinct bedding.

Geographic Data

(8) Long. 117° 55' 50" W (9) Lat. 38° 35' 23" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SW₄¹ Section 36, T. 9N R. 36E
 (17) Site Description Approximately 300 feet north of Stewart Springs road, 0.3 miles
up road from junction with Stewart Valley road. Junction is 9.8 miles north
along Stewart Valley road from intersection with County road to Mina.
 (18) Land Status BLM
 . Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/21/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data Non-marine mollusks. Associated mammals.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

I. Site Number, Name and Institutional Site Number

(1) Number I-27 (2) B.L.M. Map and Plot Overlay Tone Valley
 (3) Inst. Site Number B-8300 (4) Site Name Owl Canyon

II. Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Well cemented poorly sorted grey sandstones of shallow near-shore facies. Abundant fossil mollusks, but few taxa. Type locality of *Rostroapertura mawbyi*, a very rare planorbid.

III. Geographic Data

(8) Long. 117° 52' 12" W (9) Lat. 38° 36' 04" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SE¹/₄, Section 24, T. 9N, R. 36E
 (17) Site Description In canyon on east side of abandoned mining road between Warrior mine and Stewart Valley, 5.3 miles west along road from mine. Up west fork of canyon on top of ridge, + 0.25 miles up canyon, on west side.

(18) Land Status BLM

V. Sensitivity Evaluation (19) S-2

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc. v. 34, no. 14.

Firby, J.R., 1963. A new genus of planorbid gastropod from the Esmeralda formation of Nevada. J. Paleont., v. 37, no. 5.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/21/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data Non-marine mollusks. Associated mammals and fish.

Type locality of Rostroapertura mawbyi, Firby, 1963.

PALEONTOLOGICAL RESOURCES INVENTORY

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

I. Site Number, Name and Institutional Site Number

(1) Number I-28 (2) B.L.M. Map and Plot Overlay Ione Valley(3) Inst. Site Number B-8301 (4) Site Name Owl Canyon

II. Geologic Data

(5) Formation Esmeralda(6) Age Miocene (Barstovian)(7) Additional Data: Only two taxa present in well-bedded tuffaceous sandstone. Preservation poor.

III. Geographic Data

(8) Long. 117° 52' W (9) Lat. 38° 36' N (10) State NV(11) County Mineral (12) B.L.M. District Carson City(13) Planning Unit Mina(14) AMS Sheet Tonopah, Edition 1962(15) Quad. Goldyke 3 NW, Scale 1:24,000, Edition Prelim.(16) Grid Coordinates SE¹₄, Section 24, T. 9N, R. 37E(17) Site Description About 0.5 miles up west fork of canyon from type locality of R. mawbyi (I-27, this report), near top of west wall.(18) Land Status BLMV. Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. *Calif. Acad. Sci., Proc.*, v. 34, no. 14.

Firby, J.R., 1963. A new genus of planorbid gastropod from the Esmeralda formation of Nevada. *J. Paleont.*, v. 37, no. 5.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE 11/21/80, BY J. Firby

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data Non-marine mollusks.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-29 (2) B.L.M. Map and Plot Overlay Tone Valley
 (3) Inst. Site Number B-8302 (4) Site Name Owl Canyon

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Well-bedded diatomite of deeper water facies than
preceding localities.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 NW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates NE₄ Section 19, T. 9N R. 37E
 (17) Site Description About 400 yards up canyon from locality I-28 of
this report, in east wall of canyon.

(18) Land Status BLM
 . Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 11/21/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-30 (2) B.L.M. Map and Plot Overlay Ione Valley
(3) Inst. Site Number B-8303 (4) Site Name Owl Canyon

Geologic Data

(5) Formation Esmeralda
(6) Age Miocene (Barstovian)
(7) Additional Data: Grayish tuffaceous sandstone interbedded with thin beds of
vitric waterlaid tuffs.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Mineral (12) B.L.M. District Carson City
(13) Planning Unit Mina
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Goldyke 3 NW, Scale 1:24,000, Edition Prelim.
(16) Grid Coordinates NE¹₄ Section 19, T. 9N R. 37E
(17) Site Description In east wall of canyon.

(18) Land Status BLM
(19) Sensitivity Evaluation S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 11/20/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-31 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8304 (4) Site Name Owl Canyon

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Sandstones and near shore or on shore conglomerates.

Preservation by casts and molds.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SW $\frac{1}{4}$ Section 24, T. 9N R. 36E

(17) Site Description _____

(18) Land Status BLM _____

Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

Firby, J.R., 1963. A new genus of planorbid gastropod from the Esmeralda formation of Nevada. J. Paleont., v. 37, no. 5.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 11/20/80, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-32 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number B-8305 (4) Site Name Owl Canyon

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Thin beds of well-indurated limestone capping tuffaceous sandstone. Preservation by casts and molds.

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates Center/SE₄ Section 24, T. 9N R. 36E
 (17) Site Description Top of ridge on west side of west fork of canyon, up canyon about 0.75 miles.

(18) Land Status BLM
 (19) Sensitivity Evaluation S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation.,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

Firby, J.R., 1963. A new genus of planorbid gastropod from the Esmeralda
formation of Nevada. J. Paleont., v. 37, no. 5.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-33 (2) B.L.M. Map and Plot Overlay Ione Valley
 (3) Inst. Site Number B-8306 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: Sequence of fine grained, poorly bedded tuffaceous sandstone, tuff, conglomerate, massive gray limestone, diatomite, and well bedded "paper-shales".

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SW¹₄ Section 23, T. 9N R. 36E
 (17) Site Description In basal portion of high cliff on north side of canyon, 11.2 miles from junction of Stewart Valley road with County road to Mina and 0.3 miles south of I-24, this report.
 (18) Land Status BLM
 (19) Sensitivity Evaluation S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. *Calif. Acad. Sci., Proc.*, v. 34, no. 14.

Firby, J.R., 1963. A new genus of planorbid gastropod from the Esmeralda formation of Nevada. *J. Paleont.*, v. 37, no. 5.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/20/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-34 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8307 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Well bedded, well-indurated tuffaceous sandstone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE₄ Section 11, T. 8N R. 38E

(17) Site Description East of Nevada State Highway 89, 1.6 miles north of
junction with County road to Mina.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO , FIELD NUMBER
(22) Where Housed U.C. Mus. Paleo., Berkeley.

VII. Fossil Data

Non-marine mollusks

Mammals

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-35 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8308 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (?Clarendonian)

(7) Additional Data: Resistant dark grey, poorly bedded limestone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE $\frac{1}{4}$ Section 9, T. 8N R. 38E

(17) Site Description 1.5 miles WSW of I-34, this report.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 6/18/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-36 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8309 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Fine grained tuffaceous sandstone, ± 30 feet thick.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NW $\frac{1}{4}$ Section 15, T. 8N R. 38E

(17) Site Description One-half mile N 50° W from I-25, this report.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 11/21/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-37 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8310 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Gray, poorly bedded sandstone; weakly indurated.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE $\frac{1}{4}$ /NE $\frac{1}{4}$ Section 15, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 11/20/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-38 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8311 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Diatomite, a small lenticular body in all that is exposed.

Fauna is sparse, poorly preserved.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4}/SW_{1/4} Section 15, T. 8N R. 38E

(17) Site Description West 2.8 miles along County road to Mina from junction
of Bell Springs - Black Springs road.

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 11/21/80, BY J.. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-39 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8312 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Impure diatomaceous shale, well bedded.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE₄/SW₄ Section 15, T. 8N R. 38E

(17) Site Description Locality basically the same as for I-38 this report, but on
east flank of same low hill.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 6/18/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-40 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8313 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Massive gray limestone. Preservation moderately good for relatively few taxa.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NW₄ Section 21, T. 8N R. 33E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-41 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8314 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (? Clarendonian)

(7) Additional Data: Poorly sorted, moderately well bedded sandstone with high content of reworked vitric tuff.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates Center/NW¹₄ Section 21, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE 11/20/80, BY J. Firby

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-42 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8315 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Coarse grained poorly sorted near shore facies, high energy environment of deposition, few fossils.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates Center Section 21, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE _____ BY J. Firby

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed _____ U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number:

(1) Number I-43 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8316 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Sandy pebble conglomerate, with gravel-sized subangular
cluster, near shore high energy depositional environment. Fossils poorly
preserved.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates NE¹/₄ Section 21, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-44 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8317 (4) Site Name _____

I. Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Fine grained tuffaceous sandstone with small lenticular bodies of limestone.

II. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SE $\frac{1}{4}$ Section 22, T. 9N R. 36E

(17) Site Description In canyon west of Stewart Valley road, 0.25 miles SW of I-24, this report.

(18) Land Status BLM

V. Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 6/18/80 BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks and associated fossils, mammals.

PALEONTOLOGICAL RESOURCES INVENTORY
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CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-45 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8318 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Gray to brown fine grained sandstone, well bedded, moderately well indurated. Fossil mollusks are abundant and well preserved.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW $\frac{1}{4}$ Section 1, T. 8N R. 36E

(17) Site Description About 200 yards south of road to Stewart Springs.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 6/18/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks, ostracods abundant.

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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-46 (2) B.L.M. Map and Plot Overlay Ione Valley
(3) Inst. Site Number B-8319 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda
(6) Age Miocene (Clarendonian)
(7) Additional Data: Concretionary sandstone, well bedded, mollusks are poorly preserved; casts and molds.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Nye (12) B.L.M. District Adjacent to Carson City
(13) Planning Unit _____
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates SE corr./NW¹₄ Section 15, T. 8N R. 38E
(17) Site Description _____
(18) Land Status BLM
Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-47 (2) B.L.M. Map and Plot Overlay Ione Valley
(3) Inst. Site Number B-8320 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda
(6) Age Miocene (Clarendonian)
(7) Additional Data: Poorly sorted sandstone, moderately well bedded.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV
(11) County Nye (12) B.L.M. District Adjacent to Carson City
(13) Planning Unit _____
(14) AMS Sheet Tonopah, Edition 1962
(15) Quad. Tonopah, Scale 1:250,000, Edition 1959
(16) Grid Coordinates NE corr./NW¹ Section 14, T. 8N R. 38E
(17) Site Description _____

(18) Land Status BLM
Sensitivity Evaluation (19) _____

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-48 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number _____ (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Well bedded, moderately well indurated sandstone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW¹/₄, Section 11, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 4/ 80, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-49 (2) B.L.M. Map and Plot Overlay Ione Valley(3) Inst. Site Number B-8322 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda(6) Age Late Miocene (Clarendonian)(7) Additional Data: Well bedded diatomite, about 20 feet thick, overlying
gray sand limestone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV(11) County Nye (12) B.L.M. District Adjacent to Carson City Dist.

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962(15) Quad. Tonopah, Scale 1:250,000, Edition 1959(16) Grid Coordinates NE₄/NW₄ Section 28, T. 8N R. 38E(17) Site Description South side of E-W trending canyon 1 mile north of
abandoned mine road.(18) Land Status BLMSensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE , BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-50 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8323 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (?Clarendonian)

(7) Additional Data: Poorly sorted moderately well indurated and indistinctly bedded. Associated mammalian fossils.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW¹/₄ Section 21, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE , BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-51 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8324 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Poorly sorted coarse grained sandstone overlying brown
unconsolidated silt. Associated fossil mammals. Fossils moderately
abundant over wide area.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SW₄ Section 26, T. 9N R. 36E

(17) Site Description West side of Stewart Valley road 11.2 miles from junction with
County road to Mina. About 0.5 miles west up canyon near top of low ridge
on north side of canyon.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE , BY J. Firby

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks, associated fossil, mammals.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-52 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8325 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Brown, poorly sorted sandstone. Several taxa of non-marine mollusks.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SW₄ Section 26, T. 9N R. 36E

(17) Site Description Same locality as I-51, this report, but 20 feet stratigraphically higher.

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 6/18/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Abundant non-marine-mollusks

PALAEONTOLOGICAL RESOURCES INVENTORY
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-53 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8326 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Brown, medium grained tuffaceous sandstone,
moderately indurated.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW₄ Section 26, T. 8N R. 36E

(17) Site Description At base of small butte about $\frac{1}{2}$ mile up canyon.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 4/ 80, BY J. Firby
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-54 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8327 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Coarse grained grayish sandstone, moderately well-indurated.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE $\frac{1}{4}$ /NW $\frac{1}{4}$ Section 32, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-55 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8328 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Well indurated, moderately well bedded sandy limestone.

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW₄ Section 29, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) _____ S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks, associated fossil, mammals.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-56 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8329 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Well indurated, well bedded sandy limestone. Associated with fossil mammals.

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City Dist.

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4} Section 29, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby
(21) Fossils Collected; YES X NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-57 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8330 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Grayish medium grained sandstone.

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4}/NW_{1/4} Section 29, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

I. Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-58 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8331 (4) Site Name _____

I. Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Gray sandstone, medium to fine grained, poorly sorted.

I. Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates Center of boundary Section 28-29, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/22/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-59 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8332 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Well bedded gray sandy limestone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates Center Section 29, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

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V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/ /80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-60 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8333 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Clarendonian)

(7) Additional Data: Interbedded, poorly sorted sandstone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Nye (12) B.L.M. District Adjacent to Carson City

(13) Planning Unit _____

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SW_{1/4}/NW_{1/4} Section 22, T. 8N R. 38E

(17) Site Description _____

(18) Land Status BLM

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks. Associated mammals.

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-61 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8334 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Gray bedded limestone with interbedded fine grained tuffaceous sandstones.

I. Geographic Data

(8) Long: _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW $\frac{1}{4}$, Section 24, T. 8N, R. 36E

(17) Site Description _____

(18) Land Status BLM

I. Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/ /80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-62 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8335 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Very well bedded, well indurated, gray tuffaceous sandstone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldkye 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SE $\frac{1}{4}$ /SE $\frac{1}{4}$ Section 36, T. 9N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

-526-
V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE 11/80, BY J. Firby

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-63 (2) B.L.M. Map and Plot Overlay Tone Valley

(3) Inst. Site Number B-8336 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Thinly bedded "paper shales", associated leaf flora.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates NW $\frac{1}{4}$ Section 24, T. 8N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO , DATE 11/80 BY J. Firby

(21) Fossils Collected; YES S, NO , FIELD NUMBER

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

Some fossil leaf flora

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-64 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-8337 (4) Site Name _____

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Massive to indistinctly bedded tuffaceous sandstone.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1962

(15) Quad. Tonopah, Scale 1:250,000, Edition 1959

(16) Grid Coordinates SE¹/₄ Section 35, T. 9N R. 36E

(17) Site Description South bank of canyon west of Stewart Valley road.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation, Nevada. Calif. Acad. Sci., Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 11/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks; associated mammals.

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
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Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-67 (2) B.L.M. Map and Plot Overlay Excelsior Mt.(3) Inst. Site Number B-5508 (4) Site Name _____

Geologic Data

(5) Formation Sunrise(6) Age Triassic(7) Additional Data: _____

Geographic Data

(8) Long. 118° 6' 1" W (9) Lat. 38° 12' 2" N (10) State NV(11) County Mineral (12) B.L.M. District Carson City(13) Planning Unit Mina(14) AMS Sheet Walker Lake, Edition 1964(15) Quad. Candelaria, Scale 1:24,000, Edition 1967(16) Grid Coordinates _____ Section 17, T. 4N R. 35E(17) Site Description _____

_____(18) Land Status BLMSensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Muller, S.W. and H.G. Ferguson 1936. Triassic and Jurassic formations of west-central Nevada. Geol. Soc. Amer. Bull., v. 47:241-256.

VI. Field and Collection Data

(20) Field Check; YES _____, NO X _____, DATE _____, BY _____
(21) Fossils Collected; YES _____, NO _____, FIELD NUMBER _____
(22) Where Housed _____

VII. Fossil Data

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-69 (2) B.L.M. Map and Plot Overlay _____ Ione Valley
 (3) Inst. Site Number B-7078 (4) Site Name Insect - Hill II - N

Geologic Data

(5) Formation Esmeralda
 (6) Age Miocene (Barstovian)
 (7) Additional Data: _____

Geographic Data

(8) Long. 117° 56' 44" W (9) Lat: 38° 35' 23" N (10) State NV
 (11) County Mineral (12) B.L.M. District Carson City
 (13) Planning Unit Mina
 (14) AMS Sheet Tonopah, Edition 1962
 (15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.
 (16) Grid Coordinates SE $\frac{1}{4}$ /NW $\frac{1}{4}$ /SW $\frac{1}{4}$ Section 35, T. 9N R. 36E
 (17) Site Description: _____

 (18) Land Status BLM
 Sensitivity Evaluation (19) S-1

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby and H. Schorn
(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____
(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Insects

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-70 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number _____ (4) Site Name Pacific Union Insect Site

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Same as P-30, this report.

Geographic Data

(8) Long. 117° 56' 33" W (9) Lat. 38° 34' 33" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SE¹/₄ / NE¹/₄ / SW¹/₄ Section 2, T. 8N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-1

V. Literature Data (By: Author(s); Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES NO _____, DATE 9/24/80, BY J. Firby and H. Schorn

(21) Fossils Collected; YES NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Insect impressions. An excellent site for abundance, diversity and exceptional preservation.

PALEONTOLOGICAL RESOURCES INVENTORY
DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number:

(1) Number I-71 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B-7078 (4) Site Name: Insects

Geologic Data

(5) Formation: Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Same as I-69, this report.

Geographic Data

(8) Long. 117° 56' 44" W (9) Lat. 38° 35' 25" N (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SE $\frac{1}{4}$ /NW $\frac{1}{4}$ /SW $\frac{1}{4}$ Section 35, T. 9N R. 36E

(17) Site Description Ca. 1½ mile west of Stewart Spring, on west wall of north
draining tributary to Fingerrock Wash, about 50 feet above valley floor.

(18) Land Status BLM

Sensitivity Evaluation (19) S-1

-332-

V. Literature Data (By: Author(s), Year, Title, Publication)

None

VI. Field and Collection Data

(20) Field Check; YES X, NO _____ DATE 9/25/80 BY J. Firby and H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Insects

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-72 (2) B.L.M. Map and Plot Overlay Ione Valley(3) Inst. Site Number _____ (4) Site Name N.W. Snail Hill

Geologic Data

(5) Formation Esmeralda(6) Age Miocene (Barstovian)

(7) Additional Data:

Geographic Data

(8) Long. 117° 59' 30" W (9) Lat. 38° 39' 54" N (10) State NV(11) County Mineral (12) B.L.M. District Carson City(13) Planning Unit Mina(14) AMS Sheet Tonopah, Edition 1956(15) Quad. Goldyke 3 NW, Scale 1:24,000, Edition Prelim.(16) Grid Coordinates NE¹/₄ NW¹/₄ SE¹/₄ Section 5, T. 9N R. 36E

(17) Site Description

(18) Land Status BLMSensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1966. New non-marine mollusca from the Esmeralda formation,
Nevada. Calif. Acad. Sci. Proc., v. 34, no. 14.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 8/80, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Non-marine mollusks

PALEONTOLOGICAL RESOURCES INVENTORY
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CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-73 (2) B.L.M. Map and Plot Overlay Ione Valley

(3) Inst. Site Number B7078 (4) Site Name Insects Hill II - N

Geologic Data

(5) Formation Esmeralda

(6) Age Miocene (Barstovian)

(7) Additional Data: Insects on bedding plains of paper shale.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Tonopah, Edition 1956

(15) Quad. Goldyke 3 SW, Scale 1:24,000, Edition Prelim.

(16) Grid Coordinates SE $\frac{1}{4}$ /NW $\frac{1}{4}$ /SW $\frac{1}{4}$ Section 35, T. 9N R. 36E

(17) Site Description _____

(18) Land Status BLM

Sensitivity Evaluation (19) S-1

V. Literature Data (By: Author(s), Year, Title, Publication)

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE 8/80, BY H. Schorn

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data Carbonized remains of insects on bedding plains.

PALEONTOLOGICAL RESOURCES INVENTORY

DATA REGISTER and SENSITIVITY EVALUATION

CARSON CITY BUREAU OF LAND MANAGEMENT DISTRICT
CONTRACT YA512-CT9-262

Prefixes: P=Plant, V=Vertebrate, I=Invertebrate Fossil Sites

Site Number, Name and Institutional Site Number

(1) Number I-74 (2) B.L.M. Map and Plot Overlay Excelsior Mt.
UCMP

(3) Inst. Site Number D-1884 (4) Site Name: _____

Geologic Data

(5) Formation unnamed

(6) Age Pliocene (Blancan)

(7) Additional Data: In "older sediments" of Mono Basin. Poorly sorted and weakly indurated tuffaceous sandstones, predominantly light gray weathering to light brown.

Geographic Data

(8) Long. _____ (9) Lat. _____ (10) State NV

(11) County Mineral (12) B.L.M. District Carson City

(13) Planning Unit Mina

(14) AMS Sheet Walker Lake, Edition 1964

(15) Quad. Trench Canyon, Scale 1:62,500, Edition 1958

(16) Grid Coordinates SE $\frac{1}{4}$ /NE $\frac{1}{4}$ Section 31, T. 4N R. 29E

(17) Site Description 700 yards due east of BM7109, approximately 300 yards south of NV. state Highway 31.

(18) Land Status BLM

Sensitivity Evaluation (19) S-3

V. Literature Data (By: Author(s), Year, Title, Publication)

Firby, J.R., 1973. An Oligocene non-marine Molluscan fauna from eastern Nevada. *J. Paleont.*, v. 47, no. 1.

VI. Field and Collection Data

(20) Field Check; YES X, NO _____, DATE _____, BY J. Firby

(21) Fossils Collected; YES X, NO _____, FIELD NUMBER _____

(22) Where Housed U.C. Mus. Paleo., Berkeley

VII. Fossil Data

Non-marine mollusks

Gastropoda

Valvata humeralis

Parapholyx gesteri

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